

ABSTRACT

The invention provides methods and compositions for use in identifying inhibitors of biochemical pathways important for persistent infection, allowing the identification and/or design of improved therapeutics for treating persistent infections by pathogenic microbes.

- 5 Particularly disclosed is the importance of the glyoxylate shunt to the persistent phase of various infectious agents, including Mycobacteria, such as *M. tuberculosis*, and the identification of preferred targets for drug development, including the enzymes isocitrate lyase (ICL) and malate synthase. Crystals and three-dimensional structures of *M. tuberculosis* ICL, without ligand and in complex with two inhibitors are also disclosed,
10 for exemplary use in the design of inhibitors and therapeutic agents.